bladder, tubercle bacilli were demonstrated in the blood; the lungs gave no evidence of an active process in this case. The diagnostic value of this procedure is largely the aid it offers in the differential diagnosis of general miliary tuberculosis, typhoid fever, and sepsis, as was well proved by one of the author's cases. (After the conclusion of his work the author found certain improvements in technique which appear not to have been thoroughly tested.)

Experimental Parotitis.—HERB (*Arch. Int. Med.*, 1909, iv, 201) isolated a diplococcus from the lung, testicle, cerebrospinal and pericardial fluids, bile, and parotid gland of a man who died having mumps. The organism is similar to that which has been previously isolated from the secretion of Steno's duct, and from the blood in cases of acute parotitis. The organism grows rather slowly on ordinary media, but more abundantly on a mixture of agar with saliva. A monkey inoculated through Steno's duct with a forty-eight-hour culture developed fever and an acute parotitis lasting six days. A similar reaction was observed in dogs. The pathological lesion was studied at various stages and consists in a non-suppurative parotitis, the infiltration being composed largely of mononuclear cells.

The Occurrence of Altmann's Granules in the White Blood Cells.—In hematology there is much confusion as the relationship of the large lymphocyte to the non-granular antecedents of the myelocytes (myeloblast). Schridde and Naegeli, in particular, have laid great stress on the presence of perinuclear, fuchsinophile granules in the lymphoblast and their absence in the myeloblast, and have sought to differentiate the two cells by the presence or absence of these granules, first demonstrated by Altmann. The staining technique is difficult and in most hands has given unsatisfactory results. BUTTERFIELD, HEINEKE, and MEYER (*Folia Hemitolog.*, 1909, viii, 325) have simplified the technique and have used it in the study of these cells, not only in the bone marrow, but also in the blood in health and disease. As a result of their work they find that Altmann's granules are present not only in the lymphoblast but also in the myeloblast, and they conclude that this method of differentiation is, therefore, valueless.

The Gaseous Exchange in the Lungs in Erythrocytosis.—SENATOR (*Zeit. f. klin. Med.*, 1909, lxvi, 349) has studied the further cases of erythrocytosis, bringing the total number of cases of this disease in which the gaseous exchange in the lungs has been determined up to 8. The reports in the literature show that definite abnormalities were noted in all. The volume of the respired air is increased quite constantly and with this increase there is an augmented output of carbon dioxide and a similar change in the consumption of oxygen. In a third case of erythrocytosis which recently came under Senator's observation the gaseous exchange which was high during the earlier examinations fell to normal in the course of a few weeks. Whether this was due to oxygen inhalations or not remains undetermined. Senator has examined other cases with polycythemia which lacked splenomegaly and were not characteristic of Vaquez's disease, and in none of these did the gaseous exchange of the lungs depart from the normal. In the absence of polycythemia one finds an increased gaseous exchange during the digestion of a hearty meal; without a coincident increase in the volume of the respired air. Similarly, Senator finds that artificially induced hyperemia of the lungs (by the Saugmaske) leads to an augmentation of the carbon dioxide and oxygen. In one of the latter cases the results were quite unexpected, since the patient suffered from chlorosis (the hemoglobin being 27 per cent.). No increase in the volume of the respired air occurred. Senator believes that the increase of the gaseous exchange in Vaquez's disease cannot be attributed to any defect in the hemoglobin, since in many cases this has been found to be normal, and also because a decrease of the oxygen capacity of the blood could not explain the increased gaseous exchange, although it might account for the polycythemia and the activity of the bone marrow. Senator finds a striking similarity in the gaseous exchange of healthy individuals during digestion and in patients with erythrocytosis examined while fasting.

SURGERY.

UNDER THE CHARGE OF

J. WILLIAM WHITE, M.D.,
JOHN RHEA BARTON PROFESSOR OF SURGERY IN THE UNIVERSITY OF PENNSYLVANIA;
SURGEON TO THE UNIVERSITY HOSPITAL,

AND

T. TURNER THOMAS, M.D.,
ASSOCIATE IN SURGERY IN THE UNIVERSITY OF PENNSYLVANIA; SURGEON TO THE PHILADELPHIA GENERAL HOSPITAL, AND ASSISTANT SURGEON TO THE UNIVERSITY HOSPITAL.

Rectal Anesthesia.—LEGUEU and VERLIAC (*Archiv. gén. de chir.*, 1909, lv, 551 to 661) describe a method of administering ether per rectum, and say that the essential points to be observed in order to avoid accidents are: (1) During the administration the ether should be kept below the boiling point by immersing the flask containing it in a wet bath at 33°. (2) The anesthetic vapor should be introduced slowly, in order that the normal intestinal gas should be admixed with a progressively increasing quantity of the ether, and that the anesthetic should not be substituted for the intestinal gas. All the ether introduced should be charged with air. When the operation is completed, the rectal tube should be disconnected and as much as possible of the ether expelled with the aid of abdominal massage. The technique of rectal anesthesia is far from being perfect at the present time. The employment of bromide of ethyl as a preliminary inhalation, of ether not heated, and of oxygen as a vehicle, has permitted the avoidance of the greater number of the accidents imputed to the older technique. Prudently conducted, rectal narcosis is not more dangerous than narcosis by inhalation. It has some contraindications (bad or doubtful conditions of the intestine, acute or chronic affections of the abdomen, operations upon the perineum or genital